

REMARKS

Applicants thank the Examiner for the first complete examination of the instant application. Claims 1-19 are currently pending in the instant application. Independent claim 1 and dependent claims 3 and 9 have been amended by way of this Amendment. Reconsideration of this application, as amended, is respectfully requested.

ADDITIONAL INFORMATION DISCLOSURE STATEMENT

An additional Information Disclosure Statement has been filed in conjunction with this Amendment. The additional Information Disclosure Statement includes various German patent documents for the Examiner's consideration. Applicants have included several U.S. patents that correspond to the German patent documents identified in the Information Disclosure Statement. The Examiner is respectfully requested to consider the documents included with the filed Information Disclosure Statement.

REJECTIONS UNDER 35 U.S.C. § 112

Claims 3, 6 and 9 stand rejected under 35 U.S.C. § 112, second paragraph. This rejection is respectfully traversed.

Both dependent claims 3 and 9 have been amended to rectify minor informalities. The amendments made to dependent claims 3 and 9 are non-narrowing in nature. Applicants respectfully submit that amended claims 3 and 9 conform with at least 35 U.S.C. § 112, second paragraph.

Regarding the rejection of claim 6, Applicants have read the claim and find it is in proper form. The Examiner is respectfully requested to revisit the claim language to verify his position with regard to the subject matter of the claim.

Accordingly, reconsideration and withdrawal of the claim rejection under 35 U.S.C. § 112, second paragraph, are respectfully requested.

REJECTION UNDER 35 U.S.C. § 103(A)

Claims 1-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee et al., U.S. Patent No. 5,808,891 in view of Shaefer, U.S. Patent No. 5,222,192. These rejections are respectfully traversed.

Foremost, the Applicants would like to call into question the Examiners motivation for combining Shaefer with the teachings of Lee et al. The Examiner is respectfully reminded that there must be a reason apparent at the time the invention was made to the person of ordinary skill in that art for applying the teaching at hand, or the use of the teaching as evidence of obviousness will entail prohibited hindsight. In re Nomiya, 184 USPQ 607, 613 (C.C.P.A. 1975). Moreover, the Federal Circuit has made it clear that the best defense against the subtle but powerful attraction of a hindsight-based of obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. In re Dembiczak, 50 USPQ 2d 1614, 1616-17 (Fed. Cir. 1999). Applicants respectfully submit that the Examiner's provided motivation for combining the Shaefer and Lee et al. patent documents is unable to support a proper *prima-facie* case of obviousness, as explained hereinafter. Therefore, it can only

be assumed that the Examiner has used hindsight knowledge of the present invention when combining the two relied upon patent documents.

The Shaefer patent describes optimization techniques using generic algorithms. These optimization techniques related to generic algorithms date back to 1992. The description in the Shaefer patent does not establish a link to any industrial applications in general, nor does the patent disclosure establish a link to the metal working and steel making industry in particular.

The Lee et al. patent was filed in 1996 and addresses the problem of optimizing steel production. Certainly, due to the fact that the Shaefer patent was within the public purview at the time the invention according to Lee et al. was under development, had Lee et al. believed that generic algorithms would have helped the optimization process of steel production, then such algorithms would have likely been addressed and considered by Lee et al. However, Lee et al. makes no reference of generic algorithms when addressing the problem of optimizing steel production.

Therefore, without the knowledge of the present invention, the Applicants do not appreciate how the Examiner has come to the conclusion that Lee et al. may be combined with Shaefer et al. The Examiner has provided no substantive proof that a skilled artisan would look to the teaching of Shaefer to modify the optimization process described by Lee et al.

In view of at least the above, Applicants respectfully request reconsideration and withdrawal of the claim rejection under 35 U.S.C. § 103.

Notwithstanding the above discussion, Applicants in addition respectfully submit that the combination of Lee et al. in view of Shaefer fails to teach or suggest subject matter of the current claims.

Amended independent claim 1 sets forth a combination of limitations including “controlling the continuous casting rolling plant by the computing unit in accordance with the order determined, wherein controlling the continuous casting and rolling plant by the computing unit includes defining an operational sequence for the entire continuous casting and rolling plant.”

According to Lee et al., at least a short-term storage is provided in between a continuous caster 16 and a hot strip mill 18. In column 2, lines 26-31, Lee et al. mention that slabs are grouped together before a milling process is begun. Moreover, Lee et al. indicate that “a continuous caster schedule and a hot strip mill schedule are created.” This is in contrast to the instant claimed invention where “controlling the continuous casting and rolling plant by the computing unit includes defining an operational sequence for the entire continuous casting rolling plant.” (Claim 1; emphasis added.)

The teachings of Shaefer do not make up for the indicated deficiency of the Lee et al. patent.

With regard to the rejected dependent claims, Applicants respectfully submit that these claims are allowable at least due to their dependence upon an allowable independent claim.

In view of the above, reconsideration and withdrawal of the claim rejection under 35 U.S.C. 103(a) are respectfully requested.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims in connection with the present application are earnestly solicited.

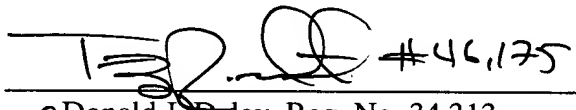
Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) hereby petition(s) for a one (1) month extension of time for filing a reply to the outstanding Office Action and submit the required \$110.00 extension fee herewith.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Timothy R. Wyckoff, Reg. No. 46,175 at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKY & PIERCE, P.L.C

By:  #46,175
Donald J. Daley, Reg. No. 34,313

DJD/TRW:tljw

P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000